

### **ABSTRACT OF THE DISCLOSURE**

A flat panel for a cathode ray tube for preventing a screen image which is realized on the panel from being shown concavely by a user and applying an existing shadow mask including a flat outer surface and a  
5 non-spherical inner surface, wherein the non-spherically formed inner surface satisfies formula 1 for preventing the screen image from being shown concavely by a user at a distance apart from the panel by a valid screen width size from the panel,  $y_2 \leq y_1$  (formula 1) wherein  $y_1$  represents a vertical distance between the outer surface and a refracted screen image  
10 on a central axis of the panel, and  $y_2$  represents a vertical distance between the outer surface apart from the central axis of the panel and the refracted screen image, and the panel has a high transmission ratio of 60% or more for preventing degradation of luminance due to a difference of thickness between a central part and environmental part.